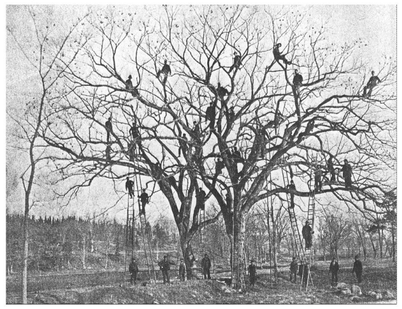
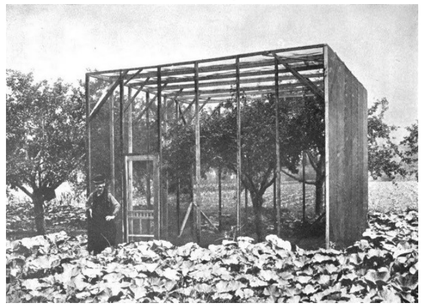
History of the Gypsy Moth in Massachusetts

dcr
Massachusetts

Early control efforts were labor intensive. It was believed that the best way to control the moth was by destroying the eggs: men would be hired to climb trees and scrape egg masses or paint them with creosote. 1896.



A biological control project, run from 1905-1914, imported tens of thousands of gypsy moth caterpillars and pupae infected by parasites from Europe, Japan, and Russia. Collected specimens were reared in laboratories and outdoor insectaries in Massachusetts. 1906.



Between 1954 and 1955, over 2 million acres were aerially sprayed with DDT in Plymouth, Norfolk, Middlesex, and Worcester Counties. 1955.

The population boom in 2016 caused significant damage statewide. Severe defoliation was visible during an aerial survey along coastal regions of Plymouth County. 2016.

1869 Gypsy moth accidentally introduced by Professor Leopold Trouvelot in Medford, MA.

1889 First major outbreak event. State Board of Agriculture headed with eradication program that continued until 1900.

1905 Control efforts resumed with the USDA bureau of Entomology joining the state.

1911 The first power truck sprayer is invented by the state, dramatically reducing insecticide spraying costs.

1922 Gypsy moths are found in every city and town in Massachusetts.

1936 The first aerial spraying pesticide treatment of the gypsy moth, significantly changes the way the gypsy moth will be managed in the upcoming decades.

1946 DDT is used on gypsy moth for the first time.

1961 Bacillus thuringiensis (Bt), a naturally occurring bacterium is first used experimentally, marking the first attempt to move from chemical insecticides to biological insecticides.

1981 Largest defoliation event in Massachusetts' history.

1989 *Entomophaga maimaiga* (Em) fungus identified as established. Spreads quickly and causes significant mortality in gypsy moth population.

2016 Outbreak caused by prolonged dry conditions lead to over 345,000 acres of defoliation.

Early outbreaks in Medford and surrounding towns caused total defoliation to stands. 1905.

Protective belts were cut around badly infested areas in an attempt to contain the movement of the moth. Control in these areas included the spraying of pesticides and burning. 1909.

Four Civilian Conservation Corps (CCC) camps were established for the sole purpose of combating the gypsy moth. 1935.

Despite initial introduction in 1910 and subsequent introductions in the early 1980's, it was not until 1989 that E. maimaiga was recovered in the wild causing mortality. 1992.

Massachusetts Dept. of Conservation and Recreation
Forest Health Program
http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/forest-health.html